REMARKS

Claims 1-25 are pending. The Office Action dated September 8, 2004 has been carefully considered. The above amendments and the following remarks are presented in a sincere attempt to place this Application in condition for allowance. Claims 1, 4, 7, 10, 13, 16, 22, and 23 have been amended in this Response. Reconsideration and allowance are respectfully requested in light of the above amendments and following remarks.

An interview was held with the Examiner, Mr. Henry Tsai, on November 23, 2004 to discuss the rejections under 35 U.S.C. §§ 102(b) and 112 and the proposed amendments thereto. Applicant thanks the Examiner for the courtesies extended.

Claims 10 and 23 are objected to as containing an informality, in that the terms "Z" are not well defined. Claims 10 and 23 have been amended to correct this informality. Applicants contend that the rationale underlying this amendment bears no more than a tangential relation to any equivalence in question because "*a block size of* Z(1 to 2)" more clearly demonstrates the definition of "Z." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S.Ct. 1831 (2002).

Claims 2, 3, 5, 6, 8, 9, 14, 15, 17, and 18 stand rejected under 35 U.S.C. §112, first paragraph, as asserted failing to comply with the enablement requirement. Insofar as they may be applied against the Claims, these rejections are traversed.

Specifically, the Examiner asserts that the Data Stream Touch (DST) of Claims 2, 5, 8, 14, and 17 is not described in the Specification. However, on page 5, lines 4-7, the "VMX architecture uses data stream touch (DST) software instructions to control software prefetch mechanisms[... where t]he DST instruction specifies a register containing the starting address, and another register containing fields specifying the access pattern." Therefore, the Specification does describe the

DSTs, explicitly. Accordingly, Applicants respectfully request that the rejections of Claims 2, 5, 8, 14, and 17 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Additionally, the Examiner asserts that the VMS architecture of Claims 3, 6, 9, 15, and 18 is not described in the Specification. However, it is well known in the art that the VMX architecture is an SIMD instruction set available from IBM set similar to the Morotola® AltiVec®. Therefore, the Specification need not detail the specifics of the VMX architecture because it is well known in the art. Accordingly, Applicants respectfully request that the rejections of Claims 3, 6, 9, 15, and 18 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Claims 1-25 stand rejected under 35 U.S.C. §112, second paragraph, as assertedly being indefinite. Insofar as they may be applied against the Claims, these rejections are overcome or respectfully traversed, as appropriate.

In Claim 1, "appropriate" has been deleted from line 9. Accordingly, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 112, second paragraph, be withdrawn.

For Claims 2, 5, 8, 14, and 17, the Examiner asserts that the Data Stream Touch (DST) is not described in the Specification. However, on page 5, lines 4-7, the "VMX architecture uses data stream touch (DST) software instructions to control software prefetch mechanisms[... where t]he DST instruction specifies a register containing the starting address, and another register containing fields specifying the access pattern." Therefore, the Specification does describe the DSTs, explicitly. Accordingly, Applicants respectfully request that the rejections of Claims 2, 5, 8, 14, and 17 under 35 U.S.C. § 112, second paragraph, be withdrawn.

For Claims 3, 6, 9, 15, and 18, the Examiner asserts that the VMS architecture is not described in the Specification. However, it is well known in the art that the VMX architecture is a

SIMD instruction set available from IBM® set similar to the Morotola® AltiVec®. Therefore, the Specification need not detail the specifics of the VMX architecture because it is well known in the art. Accordingly, Applicants respectfully request that the rejections of Claims 3, 6, 9, 15, and 18 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In Claim 4, "whether the software prefetch instruction is within a set of predetermined values" has been replaced with --whether *a value of a Stride field of* the software prefetch instruction is within a set of predetermined values--. (Emphasis added.) Accordingly, Applicants respectfully request that the rejection of Claim 4 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In Claim 7, "for software prefetch mechanisms not within steps a through g" has been replaced with --*if the values in said fields of software prefetch instructions are not within the values specified in* steps a through g--. (Emphasis added.) Accordingly, Applicants respectfully request that the rejection of Claim 4 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In Claim 13, "if the values of the software prefetch instruction are within the set of predetermined comparison values" has been replaced with --if the values of the *Stride Field* are within the set of predetermined comparison values--. (Emphasis added.) Accordingly, Applicants respectfully request that the rejection of Claim 13 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In Claims 16 and 22, "software prefetch instructions" has been replaced with -- software prefetch instruction *field parameters*--. (Emphasis added.) Accordingly, Applicants respectfully request that the rejections of Claims 16 and 22 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claims 1-6 and 13 stand rejected under 35 U.S.C. §102(b) in view of U.S. Patent No. 6,073,215 by Snyder ("Snyder"). Insofar as they may be applied against the Claims, these rejections are overcome.

Rejected independent Claim 1 as now amended more particularly recites one of the distinguishing characteristics of the present invention, namely, *"determining a value of a Stride field if Block Count field is not 1* [...and] mapping a subset of the software prefetch instructions to a modified version of the hardware prefetch mechanism *if the Stride Field is within a specified parameter or if the Block Count field is 1."* (Emphasis added.) Support for this Amendment can be found, among other places, page 7, line 3 to page 10, line 9, of the original Application.

Snyder does not suggest, teach, or disclose the use of a specific value of the Block Count field or the Stride field to control mapping. Specifically, Snyder is directed toward a prefetch mechanism in a data processing system. However, employing a specific value of the Block Count field or the Stride field to control mapping allows for increased efficiency in systems that utilize hardware prefectch logic, which is not shown in Snyder. Additionally, by employing the Block Count field and/or the Stride field, no additional hardware is required to increase the efficiency of the system.

In view of the foregoing, it is apparent that the cited references do not disclose, teach or suggest the unique combination now recited in amended Claim 1. Applicants therefore submit that amended Claim 1 is clearly and precisely distinguishable over the cited reference in a patentable sense, and is therefore allowable over this reference and the remaining references of record. Accordingly, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 102(b) in view of Snyder be withdrawn and that Claim 1 be allowed.

Claims 2 and 3 depend on and further limit Claim 1. Hence, for at least the aforementioned reasons, these Claims would be deemed to be in condition for allowance. Applicants respectfully request that the rejections of dependent Claims 2 and 3 also be withdrawn.

Applicants contend that the rejection of Claim 4 is overcome for at least some of the reasons that the rejection of Claim 1 as amended is overcome. These reasons include Snyder not disclosing, teaching, or suggesting "responsive to the decoding, determining whether *a value of a Stride field of* the software prefetch instruction is within a set of predetermined values for each field within the instruction *if Block Count field of the software prefetch instruction is not 1* [and] if *fields of* the *Stride field or Block Count field of the* software prefetch instruction are within the set of predetermined values, mapping the decoded software prefetch instruction to a hardware prefetch mechanism." (Emphasis added.) Applicants therefore respectfully submit that amended Claim 4 is clearly and precisely distinguishable over the cited references in any combination.

In view of the foregoing, it is apparent that the cited references do not disclose, teach or suggest the unique combination now recited in amended Claim 4. Applicants therefore submit that amended Claim 4 is clearly and precisely distinguishable over the cited reference in a patentable sense, and is therefore allowable over this reference and the remaining references of record. Accordingly, Applicants respectfully request that the rejection of Claim 4 under 35 U.S.C. § 102(b) in view of Snyder be withdrawn and that Claim 4 be allowed.

Claims 5 and 6 depend on and further limit Claim 4. Hence, for at least the aforementioned reasons, these Claims would be deemed to be in condition for allowance. Applicants respectfully request that the rejections of dependent Claims 5 and 6 also be withdrawn.

Applicants contend that the rejection of Claim 13 is overcome for at least some of the reasons that the rejection of Claim 1 as amended is overcome. These reasons include Snyder not disclosing, teaching, or suggesting "means for mapping the decoded software prefetch instruction to a hardware prefetch mechanism *if the Block Count field parameter is 1 or* if the values of the *Stride field parameters* are within the set of predetermined comparison values." (Emphasis added.) Applicants therefore respectfully submit that amended Claim 13 is clearly and precisely distinguishable over the cited references in any combination.

In view of the foregoing, it is apparent that the cited references do not disclose, teach or suggest the unique combination now recited in amended Claim 13. Applicants therefore submit that amended Claim 13 is clearly and precisely distinguishable over the cited reference in a patentable sense, and is therefore allowable over this reference and the remaining references of record. Accordingly, Applicants respectfully request that the rejection of Claim 13 under 35 U.S.C. § 102(b) in view of Snyder be withdrawn and that Claim 13 be allowed.

Applicants have now made an earnest attempt to place this Application in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 1-25.
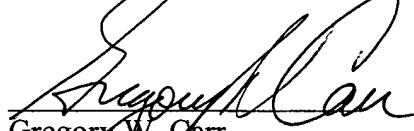
Applicants do not believe that any fees are due; however, in the event that any fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 50-0605 of CARR LLP.

Should the Examiner require any further clarification to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

CARR LLP

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